

PRELIMINARY AMENDMENT

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IN THE CLAIMS

Please cancel claims 1-12 without prejudice or disclaimer in favor of the following new claims .

1-12. Cancelled

13. (New) A floor covering comprising a hard floor panel having a substantially planar underside and at least two opposed side edges, said side edges including complementary coupling parts configured to cooperate with identical cooperative complementary coupling parts of another one of said panel, said coupling parts comprising substantially a tongue and a groove extending along panel side edges generally parallel to the panel underside and including integrated mechanical locking elements, said tongue, groove and locking elements formed in one piece with the panel, said tongue, groove and locking elements arranged to prevent drifting apart of the floor panel when coupled by said coupling parts to another one of said floor panel in a direction perpendicular to the adjacent side edges of the coupled panels, and parallel to the underside of the panel; a coupling part of said panel, when engaged with a complementary coupling part of another one of said panel, configured and arranged to produce a biasing force between such coupled panels tending to urge the panels towards each other; at least one of said coupling parts including an elastically bendable portion having a relaxed unbent position, and which, when in a coupled condition, is at least partially bent out of its normal relaxed position and thereby provides said biasing force;

wherein the elastically bendable portion of said one of said coupling part comprises a lower lip defined at least in part by a lower side of the groove of said coupling parts, said lower lip cooperating with a mating portion of a tongue of a cooperating coupling part;

wherein said lip when bent extends in a downward direction relative to the panel underside when the panel is coupled by cooperative complementary coupling parts to another one of said panel;

wherein the panel comprises a core comprising wood particles bound together with a binder; one of said locking elements comprises a recess in said lower lip, said recess having a

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lowermost bottom area; said groove having a deepest point within the panel; and wherein said elastically bendable portion of the lower lip comprises a portion of said lower lip located between the deepest point of said groove and the lowermost bottom area of said recess;

wherein the bendable portion of the lower lip includes a side wall of said recess that slopes downwardly in a direction extending from a distally outer area of said lip towards a proximally inner area of said lip.

14. (New) A floor covering comprising a hard floor panel having a substantially planar underside and at least two opposed side edges, said side edges including complementary coupling parts configured to cooperate with identical cooperative complementary coupling parts of another one of said panel, said coupling parts comprising substantially a tongue and a groove extending along panel side edges generally parallel to the panel underside and including integrated mechanical locking elements, said tongue, groove and locking elements formed in one piece with the panel, said tongue, groove and locking elements arranged to prevent drifting apart of the floor panel when coupled by said coupling parts to another one of said floor panel in a direction perpendicular to the adjacent side edges of the coupled panels, and parallel to the underside of the panel; a coupling part of said panel, when engaged with a complementary coupling part of another one of said panel, configured and arranged to produce a biasing force between such coupled panels tending to urge the panels towards each other; at least one of said coupling parts including an elastically bendable portion having a relaxed unbent position, and which, when in a coupled condition, is at least partially bent out of its normal relaxed position and thereby provides said biasing force;

wherein said floor panel is rectangular and includes two pairs of opposed side edges; said coupling parts and locking elements are provided on all side edges of the panel; and wherein said locking elements are provided on at least two side edges that are perpendicular to and meet each other whereby, when the panel is coupled with complementary coupling parts of identical ones of said panel at all opposed edges, the panels are locked together by said locking elements at all

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coupled side edges;

wherein said coupling parts are configured and arranged to enable coupling of complementary coupling parts of identical ones of said panel to each other by rotation of one panel relative to the other, said coupling parts configured such that upon rotation of one panel relative to the other panel the elastically bendable portion of one coupling part is bent; and wherein at coupled side edges of the coupled panels the coupling parts are configured such that one panel is movable relative to the other by shifting the one relative to the other in a direction parallel to the coupled side edges; said shifting of one panel relative to the other maintaining the bent condition of the elastically bendable portion of the lower lip while the panels are coupled.

15. (New) A method of assembling a floor covering comprising cooperating rectangular hard floor panels each having a substantially planar underside and at least two opposed side edges including complementary coupling parts arranged to cooperate with identical complementary coupling parts of another one of said panels, said complementary coupling parts substantially comprising a tongue and a groove extending generally parallel to said underside, said coupling parts further including integrated mechanical locking elements which prevent the drifting apart of coupled ones of said panels away from each other in directions perpendicular to the respective coupled side edges and parallel to the undersides of the panels, said coupling parts defining at least in part a lower lip which defines at least a portion of a lower side of each groove of the coupling parts and an upper lip located above each groove area adjacent the upper surface of the panel; said lower lip extending distally beyond the upper lip; said locking elements including a portion of said lower lip which slopes downwardly in a direction extending from a distally outer location towards a proximally inner location, said portion located at least in part on a part of the lower lip extending beyond said upper lip, a lower side of said tongue that is inclined downwardly in a direction extending from proximal inner location of said tongue to a distally outer location thereof; said portion of said lower lip that slopes downwardly cooperating with said lower side of the tongue that is inclined, said lower lip including an elastically bendable portion that must be elastically bent downwardly to enable coupling of a complementary pair of

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tongue and groove coupling parts; comprising the steps of:

laying a first one of said panels on a support surface;

coupling a second one of said panels to said first one panel along first and second complementary side edges of the panels by fitting a tongue of one panel into a complementary groove of the other panel until said downwardly sloping portion of said lower lip engages said downwardly inclined lower side of said tongue while bending the lower lip elastically in a downward direction; and

maintaining said lower lip in a bent condition after such coupling to effectively bias the sloped and inclined portions of the lower lip and tongue together and to produce a resultant biasing force maintaining the panels compressed against each other at the coupled side edges.

16. (New) A method according to claim 15, wherein said second panel is coupled to the first panel by first fitting the tongue and groove into each other with the second panel angled upwardly with respect to the first panel and then subsequently angling down the second panel to bring the two panels into a coplanar relationship, and causing by said angling down that the bendable portion of the lower lip of the first panel is resiliently bent downwardly over a small distance.

17. (New) The method according to claim 15, wherein the second panel is coupled to the first panel by first fitting the tongue and groove into each other, said fitting being carried out by shifting the second panel relative to the first panel with both panels in a substantially coplanar relationship, and causing by said shifting that the bendable portion of the lower lip of the first panel is deflected downwardly over a small distance.

18. (New) The method according to claim 15, wherein said tongue, groove, lips and locking elements are provided on coupling parts located at opposed pairs of opposite side edges, said method comprising the additional step of:

coupling a third one of said panels to the first and second ones of said panels respectively

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along complementary third and fourth side edges of the panels that extend perpendicular to each other; and causing by said coupling that an elastically bendable portion of a lower lip of the last recited side edges is elastically deflected in a downward direction, the return force of the deflected portion of the lip providing the resultant biasing force maintaining the panels compressed against each other along said third and fourth side edges.

19. (New) The method according to claim 18, wherein the coupling of the panels is created by the steps of:

coupling the third panel to the first panel by first fully coupling together a tongue and groove of the third and first panels by shifting the third panel relative to first panel with both panels in a coplanar relationship, said shifting causing a bendable portion of the lower lip of the first panel to become and remain deflected downwardly over a small distance while the panels are coupled; and

coupling the third panel to the second panel by coupling the tongue and groove of the respective third and second panels, said coupling being carried out by shifting the third panel relative to the second panel with the panels in a substantially coplanar relationship; causing the bendable portion of the lower lip of the second panel to become and remain deflected downwardly over a small distance while the third and second panels are coupled.

20. (New) A floor covering comprising

a laminated hard floor panel having a wood-based core material comprising wood particles bound together with a binder said panel comprising a first pair and a second pair of opposed side edges,

said panel further comprising generally complementary coupling parts located at both of the pairs of said side edges, said coupling parts comprising a tongue and a groove, said tongue and groove when coupled along adjacent side edges of two ones of said panel comprising integral mechanical locking elements, said coupling parts as well as said mechanical locking elements being integral with said core material,

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said coupling parts together with said locking elements arranged so as to enable a locking in a direction perpendicular to the plane of the floor covering as well as in a direction perpendicular to the coupled side edges and parallel to a plane including the panels that are coupled;

wherein said coupling parts and the mechanical locking elements of at least said second pair of opposite side edges are configured such that two identical ones of said floor panel are coupled by shifting them laterally towards each other in a substantial planar fashion, and

wherein the locking elements of said second pair of opposite side edges provide a snap-together coupling providing a snap-action during the coupling of two panels by shifting them laterally towards each other;

wherein said locking elements comprise a recess located in a lower lip extending at least to a side edge and defining at least in part a lower side of said groove; and a protrusion provided at a lower side of said tongue;

wherein the panels at the side edge comprising the groove, of at least one of the side edge of both pairs of the side edges, include an upper lip above the groove, said upper lip defining at least in part an upper side of said groove, and said upper lip terminating at a distal outer end, wherein said lower lip extends distally beyond the distal outer end of the upper lip, and further wherein the recess is located in the lower lip in an area of the lower lip that is located at least partly beyond the distal outer end of the upper lip.

21. (New) The floor covering according to claim 20, wherein the configuration of the tongue and the lower lip are such that a tongue of said panel becomes automatically lodged in the groove of another identical one of said panels by laterally moving the panels towards each other in approximately a plane including the panels during which the tongue is partially inserted into the groove before the lower lip is deformed.

22. (New) The floor covering according to claim 21, wherein said panel becomes automatically lodged in the groove of another identical one of said panels by laterally moving the

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panels towards each other in approximately a plane including the panels starting from positions at which the panels are completely separated from each other.

23. (New) The floor covering according to claim 20, wherein the first pair of side edges as well as the second pair of the side edges comprise coupling parts and locking elements including a lower lip extending beyond the upper lip.

24. (New) The floor covering according to claim 20, wherein one pair of the side edges comprises coupling parts in the form of a tongue and a groove and wherein the locking elements of this pair of side edges are located completely inside the groove.

25. (New) The floor covering according to claim 24, wherein the groove is formed by upper and lower lips, the upper lip and the lower lip bordering the groove are of equal length.

26. (New) The floor covering according to claim 25, wherein said floor panels are elongated and the side edges having the upper lip and the lower lip of equal length is located at one of the short sides of the panels.

27. (New) The floor covering according to claim 20, wherein the lower lip extends beyond the upper lip over a distance which is smaller than the thickness of the panel.

28. (New) The floor covering according to claim 20, wherein at least one pair of the edges, the locking elements comprise inclined contact surfaces.

29. (New) The floor covering according to claim 28, wherein the contact surfaces define a tangent line which in respect to the plane of the floor covering shows an inclination which is comprised between 30.degree. and 70.degree..

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30. (New) A floor covering comprising

a laminated hard floor panel having a core material, said panel comprising a first pair and a second pair of opposed side edges,

said panel further comprising generally complementary coupling parts located at both of the pairs of said side edges, said coupling parts comprising a tongue and a groove, said tongue and groove when coupled along adjacent side edges of two ones of said panel comprising integral mechanical locking elements, said coupling parts as well as said mechanical locking elements being integral and made in one piece with said core material,

said coupling parts together with said locking elements arranged so as to enable a locking in a direction perpendicular to the plane of the floor covering as well as in a direction perpendicular to the coupled side edges and parallel to a plane including the panels that are coupled,

wherein said coupling parts and the mechanical locking elements of at least said second pair of opposite side edges are configured such that two identical ones of said floor panel are coupled by shifting them laterally towards each other in a substantial planar fashion, and

wherein the locking elements of said second pair of opposite side edges provide a snap-together coupling providing a snap-action during the coupling of two panels by shifting them laterally towards each other, said snap action being delivered substantially by said core material;

wherein said locking elements comprise a recess located in a lower lip extending at least to a side edge and defining at least in part a lower side of said groove; and a protrusion provided at a lower side of said tongue;

wherein the panels at the side edge comprising the groove, of at least one of the side edge of both pairs of the side edges, include an upper lip above the groove, said upper lip defining at least in part an upper side of said groove, and said upper lip terminating at a distal outer end, wherein said lower lip extends distally beyond the distal outer end of the upper lip, and further wherein the recess is located in the lower lip in an area of the lower lip that is located at least partly beyond the distal outer end of the upper lip.



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31. (New) A floor covering comprising

a laminated hard floor panel having a wood-based core material comprising wood particles bound together with a binder, said panel comprising a first pair and a second pair of opposed side edges,

said panel further comprising generally complementary coupling parts located at both of the pairs of said side edges, said coupling parts comprising a tongue and a groove, said tongue and groove when coupled along adjacent side edges of two ones of said panel comprising integral mechanical locking elements, said coupling parts as well as said mechanical locking elements being integral with said core material,

said coupling parts together with said locking elements arranged so as to enable a locking in a direction perpendicular to the plane of the floor covering as well as in a direction perpendicular to the coupled side edges and parallel to a plane including the panels that are coupled,

wherein said coupling parts and the mechanical locking elements of at least said second pair of opposite side edges are configured such that two identical ones of said floor panel are coupled by shifting them laterally towards each other in a substantial planar fashion, and

wherein the locking elements of said second pair of opposite side edges provide a snap-together coupling providing a snap-action during the coupling of two panels by shifting them laterally towards each other;

at least one of said pairs of edges comprising a lower lip defining at least in part a bottom side of a groove of said coupling parts and extending distally beyond a respective groove opening, and wherein said locking elements comprise a protrusion extending from the lower side of a tongue of said pairs of edges and a cooperating recess in said lower lip, said protrusion and recess fitting together when ones of said panel are coupled by said tongue and groove;

wherein, when a complementary tongue and groove are coupled, said protrusion and recess meet each other at contiguous contact surfaces at a common plane of tangency that with respect to a common plane of the coupled panels is inclined inwardly from a distally outer area

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towards a distally inner area at an angle less than 90°.

32. (New) The floor panel according to claim 31, wherein the angle is between 30-70°.

33. (New) A floor covering comprising  
a laminated hard floor panel having a, said panel comprising a first pair and a second pair of opposed side edges,

said panel further comprising generally complementary coupling parts located at both of the pairs of said side edges, said coupling parts comprising a tongue and a groove, said tongue and groove when coupled along adjacent side edges of two ones of said panel comprising integral mechanical locking elements, said coupling parts as well as said mechanical locking elements being integral and made in one piece with said core material,

said coupling parts together with said locking elements arranged so as to enable a locking in a direction perpendicular to the plane of the floor covering as well as in a direction perpendicular to the coupled side edges and parallel to a plane including the panels that are coupled,

wherein said coupling parts and the mechanical locking elements of at least said second pair of opposite side edges are configured such that two identical ones of said floor panel are coupled by shifting them laterally towards each other in a substantial planar fashion, and

wherein the locking elements of said second pair of opposite side edges provide a snap-together coupling providing a snap-action during the coupling of two panels by shifting them laterally towards each other, said snap action being delivered substantially by said core material;

at least one of said pairs of edges comprising a lower lip defining at least in part a bottom side of a groove of said coupling parts and extending distally beyond a respective groove opening, and wherein said locking elements comprise a protrusion extending from the lower side of a tongue of said pairs of edges and a cooperating recess in said lower lip, said protrusion and recess fitting together when ones of said panel are coupled by said tongue and groove;

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wherein, when a complementary tongue and groove are coupled, said protrusion and recess meet each other at contiguous contact surfaces at a common plane of tangency that with respect to a common plane of the coupled panels is inclined inwardly from a distally outer area towards a distally inner area at an angle less than 90°.

34. (New) A method of assembling a floor covering comprising hard floor panels of rectangular shape, said panels each including complementary coupling parts at opposed side edges of the panels, said coupling parts arranged to cooperate with complementary coupling parts of another one of said panel, said coupling parts comprising substantially a tongue, a groove, and integrated locking elements collectively arranged to prevent the drifting apart of two coupled ones of said floor panel in a direction parallel to the edges along which the panels are coupled and parallel to a plane including the floor panels, said panels each including distally extending upper and lower lips on opposite sides of said groove, said lower lip including an elastically flexible portion and defining at least in part a lower side of the groove and extending distally beyond the upper lip, and wherein one of said locking elements comprises at least in part a portion of the elastically flexible portion of the lower lip that extends beyond the upper lip and which is inclined downwardly in a direction extending inwardly from the distal end area of said lip, said locking element cooperating with a surface of the lower side of the tongue which slopes downwardly in a direction extending outwardly from a proximal area of the tongue toward a distal area thereof, said method comprising the steps of:

laying a first one of said hard floor panel on a support surface;

placing a second one of said panel next to a side edge of the first one of said panel, such that a tongue of one of said panel side edges lies next to a groove of the other one of said panel side edges;

shifting the panels towards each other to move a tongue into a groove and to bend a flexible portion of a lower lip downwardly, said shifting causing the inclined and sloped surfaces of the tongue and groove respectively to engage each other in coupled relationship with the panels biased towards each other by the returning force of the downwardly bent lower lip;

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wherein a third panel is coupled to a previously laid one or more of said first and second ones of said panel by placing the tongue of the third panel in a complementary groove of one or more of the previously laid panels, and wherein the second one of said panel, before being coupled with the first one of said panel, is coupled to an already previously laid one or more of said panel using the steps of:

directing a tongue of the third one of said panel towards a groove of an already laid panel or panels and inserting a tongue of the third one of said panel at least partially into the groove of an already laid panel or panels while the third one panel is angled upwardly relative to the already laid panel or panels;

angling down the third one of said panel so that the inclined locking elements are brought adjacent each other;

after such angling down of the third one of said panel, laterally moving the third one of said panel towards the previously laid one or more panels with the panels in a common plane to completely engage the tongue, groove and locking elements of the third one of said panel with a complementary tongue, groove and locking element of the previously laid panel or panels.

### 35. (New) A floor covering comprising

a laminated hard floor panel having a wood-based core material comprising wood particles bound together with a binder, said panel comprising a first pair and a second pair of opposed side edges,

said panel further comprising generally complementary coupling parts located at both of the pairs of said side edges, said coupling parts comprising a tongue and a groove, said tongue and groove when coupled along adjacent side edges of two ones of said panel comprising integral mechanical locking elements, said coupling parts as well as said mechanical locking elements being integral with said core material,

said coupling parts together with said locking elements arranged so as to enable a locking in a direction perpendicular to the plane of the floor covering as well as in a direction perpendicular to the coupled side edges and parallel to a plane including the panels that are

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coupled,

wherein said coupling parts and the mechanical locking elements of at least said second pair of opposite side edges are configured such that two identical ones of said floor panel are coupled by shifting them laterally towards each other in a substantial planar fashion, and

wherein the locking elements of said second pair of opposite side edges provide a snap-together coupling providing a snap-action during the coupling of two panels by shifting them laterally towards each other;

wherein said coupling parts and locking elements of the first pair of side edges are configured and dimensioned so as to enable two identical ones of said floor panel to be coupled at the side edges at least by turning one of said floor panels relative to the other.

36. (New) The floor covering according to claim 35, wherein said floor panels are elongated and the first pair of opposed side edges is formed by the longer side edges, whereas the second pair of opposed side edges is formed by the shorter side edges.

37. (New) A floor covering comprising  
a laminated hard floor panel having a core material, said panel comprising a first pair and a second pair of opposed side edges,

said panel further comprising generally complementary coupling parts located at both of the pairs of said side edges, said coupling parts comprising a tongue and a groove, said tongue and groove when coupled along adjacent side edges of two ones of said panel comprising integral mechanical locking elements, said coupling parts as well as said mechanical locking elements being integral and made in one piece with said core material,

said coupling parts together with said locking elements arranged so as to enable a locking in a direction perpendicular to the plane of the floor covering as well as in a direction perpendicular to the coupled side edges and parallel to a plane including the panels that are coupled,

wherein said coupling parts and the mechanical locking elements of at least said second

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pair of opposite side edges are configured such that two identical ones of said floor panel are coupled by shifting them laterally towards each other in a substantial planar fashion, and

wherein the locking elements of said second pair of opposite side edges provide a snap-together coupling providing a snap-action during the coupling of two panels by shifting them laterally towards each other, said snap action being delivered substantially by said core material;

wherein said coupling parts and locking elements of the first pair of side edges are configured and dimensioned so as to enable two identical ones of said floor panel to be coupled at the side edges at least by turning one of said floor panels relative to the other.